



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16716

Generic Copy

Issue Date: 07-Sep-2011

TITLE: Copper Wire replacing Gold Wire in WDFN 3 2*2*.75MM, SOT23 and SOD323 packages

PROPOSED FIRST SHIP DATE: 07-Dec-2011

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Assembly Areas – Wire Bond

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Masitah Aznam
<Masitah.Aznam@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Redentor Canoza
<Redentor.Canoza@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

ON Semiconductor is notifying customers of its use of Copper Wire (in place of Gold Wire) for WDFN 3 2*2*.75MM, SOT23 and SOD323 packages. Discrete products built with bipolar transistor and Zener diode platforms are represented by this Process Change Notice.

Reliability Qualification and full electrical characterization over temperature has been performed.



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16716

RELIABILITY DATA SUMMARY:

Reliability Test Results:

**WDFN 3 2*2*.75MM Bipolar Transistor
NSS40501UW3T2G**

Test	Conditions	Interval	Results
HTRB	TA=150C,80% Rated Voltage	1008 hrs	0/240
Precondition	MSL1@ 260C , 3 X IR at 260 C		0/960
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
HAST+PC	Ta=+130°C, RH=85%, V= 80% rated	96 hrs	0/240
IOL+PC	Ta=25C, Delta TJ = 100 C, Ton/off = 2 min.	15000 cyc	0/240
TC+PC	Ta= -65 C to 150 C, air to air	1000 cyc	0/240
HTSL	Ta=150C	1008 hrs	0/240
DPA	Per AECQ101, Post TC 1000cycs		0/6
DPA	Per AECQ101, Post H3TRB 1008hrs		0/6
RSH	Ta=260C, 10 sec dwell		0/90

**SOT-23 Zener
MMBZ33VALT1G**

Test	Conditions	Interval	Results
Precondition	MSL1@ 260C, 3 X IR at 260 C/260 C		0/960
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
H3TRB+PC	Ta=85C RH=85% bias=80% rated V or100V Max	1008 hrs	0/240
IOL+PC	Ta=25C, Delta TJ = 100 C, Ton/off = 2 min.	15000 cyc	0/240
TC+PC	Ta= -65 C to 150 C	1000 cyc	0/240
HTSL	Ta=150C	1008 hrs	0/240
DPA	Per AECQ101, after 1000 cyc TC		0/6
DPA	Per AECQ101, after 1008 hrs H3TRB		0/6
RSH	Ta=260C, 10 sec dwell		0/90

**SOT-23 Small Signal Transistor
MMBT2369LT1G**

Test	Conditions	Interval	Results
HTRB	TA=150C,80% Rated Voltage	1008 hrs	0/240
Precondition	MSL1@ 260C , 3 X IR at 260 C		0/960
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
H3TRB+PC	Ta=85C RH=85% bias=80% rated V or100V Max	1008 hrs	0/240
IOL+PC	Ta=25C, Delta TJ = 100 C, Ton/off = 2 min.	15000 cyc	0/240
TC+PC	Ta= -65 C to 150 C, air to air	1000 cyc	0/240
HTSL	Ta=150C	1008 hrs	0/240
DPA	Per AECQ101, Post TC 1000cycs		0/6
DPA	Per AECQ101, Post H3TRB 1008hrs		0/6
RSH	Ta=260C, 10 sec dwell		0/90



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16716

**SOD323 Zener
MM3Z43VT1G**

Test	Conditions	Interval	Results
HTRB	TA=150C,80% Rated Voltage	1008 hrs	0/240
Precondition	MSL1 @ 260C, 3 X IR at 260 C/260 C		0/960
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
H3TRB+PC	Ta=85C RH=85%	1008 hrs	0/240
	bias=80% rated V or100V Max		
IOL+PC	Ta=25C, Delta TJ = 100 C, Ton/off = 2 min.	15000 cyc	0/240
TC+PC	Ta= -65 C to 150 C	1000 cyc	0/240
HTSL	Ta=150C	1008 hrs	0/240
DPA	Per AECQ101, after 1000 cyc TC		0/6
DPA	Per AECQ101, after 1008 hrs H3TRB		0/6
RSH	Ta=260C, 10 sec dwell		0/90

ELECTRICAL CHARACTERISTIC SUMMARY:

Product performance meets data sheet specifications.

CHANGED PART IDENTIFICATION:

Products assembled with the Copper Wire from the ON Semiconductor facility will have a Finished Goods Date Code 1149 or greater, representing Work Week 49, 2011 or newer.



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List of affected General Parts:

WDFN 3 2*2*.75MM

PART

NSS40200UW6T1G
NSS20501UW3T2G
NSS40501UW3T2G
NSS12501UW3T2G
NSS20500UW3T2G
NSS40500UW3T2G
NSS12500UW3T2G
NSS12100UW3TCG

SOT23

PART

NZ23C5V6ALT1G

SOD323

PART

MM3Z24VST1G
MM3Z36VST1G